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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/538,729	06/13/2005	Vitalij Lissotschenko	A-9600	3754

7590 04/29/2010
Hoffman Wasson & Gitler
2461 South Clark Street
Suite 522 Crystal Center 2
Arlington, VA 22202

EXAMINER

FINDLEY, CHRISTOPHER G

ART UNIT	PAPER NUMBER
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2621

MAIL DATE	DELIVERY MODE
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04/29/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/538,729	Applicant(s) LISSOTSCHENKO, VITALIJ	
	Examiner CHRISTOPHER FINDLEY	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14, 17-21 and 25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14, 17-21 and 25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/13/2005, 12/30/2005, 3/04/2008, 10/28/2009</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. **Claims 1-3, 7, 8, 10-14, 18-21, and 25 are rejected under 35 U.S.C. 102(e) as being anticipated by Goldstein et al. (US 6396873 B1, hereinafter referred to as “Goldstein”).**

Re **claim 1**, Goldstein discloses a device for recording of three-dimensional image data of an object, comprising the following: recording means for recording of a light emerging from the object (Goldstein: Fig. 2, sensor assembly 202); and lens means with a plurality of cylinder lenses which form lens elements through which the light emerging from the object can be imaged onto a recording means, by at least the first of the lens elements an image of the object or of parts of the object which are to be recorded being able to be produced at a first location on the recording means, this image differing from the image of the object or of parts of the object which are to be recorded, which can be produced by at least the second of the lens elements at a second location which is different from the first (Goldstein: Fig. 2, sensor assembly 202 includes lenticular lens layer 222; column 7, lines 57-65), wherein a curvature of the

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cylinder lenses in the edge areas of the lens means is made greater or lesser than in a middle area of the lens means (Goldstein: Figs. 3B and 3C, the lenticular lens element is thickest in the center and rounded so that the edges are more shallow than the center).

Re **claim 2**, Goldstein discloses that between the individual cylinder lenses, grooves are made which extend parallel to the cylinder axes of the cylinder lenses (Goldstein: Fig. 3C).

Re **claim 3**, Goldstein discloses that the cylinder lenses have a spherical and/or an aspherical curvature (Goldstein: Fig. 3C shows that the lenticular elements have spherical curvature).

Re **claim 7**, Goldstein discloses that the distance between the recording means and the lens means corresponds roughly to the focal length of the lens elements (Goldstein: column 6, lines 22-27, the apparatus includes a lenticular lens layer which focuses the image of the object on the light sensor array).

Re **claim 8**, Goldstein discloses that the distance between the recording means and the lens means can be changed (Goldstein: Fig. 2, the sensor assembly is connected to a flexible cord, indicating that the sensor assembly may be moved).

Re **claim 10**, Goldstein discloses that the recording means comprise at least one sensor element which can be read out digitally and/or electronically, by at least one CCD chip or an array of CCD chips (Goldstein: column 7, lines 57-65).

Re **claim 11**, Goldstein discloses that the recording means can record the light which has been imaged by one of the imaging elements separately from the light which is imaged by the other of the imaging elements (Goldstein: Fig. 1, each lenticular element focuses light only onto a particular portion of the sensor array; Fig. 7A, step 402).

Re **claim 12**, Goldstein discloses that the device comprises read-out means and/or processing means which can process and/or read out the image data of the object which have been recorded by the recording means (Goldstein: Fig. 2, the system includes stereoscopic display 214).

Re **claim 13**, Goldstein discloses that the three-dimensional image data are data about static images for in the form of photo data or are image data about moving images, in the form of video data (Goldstein: Fig. 2, stereoscopic video generator 212 generates video data).

Re **claim 14**, Goldstein discloses reproduction means for reproducing image data of the object (Goldstein: Fig. 2, stereoscopic video generator 212); and lens means with a plurality of lens elements which can image the light proceeding from the reproduction means (Goldstein: Fig. 2, stereoscopic display 214 displays stereoscopic video from stereoscopic video generator 212), wherein the reproduction means can reproduce the image data which have been recorded with a device for recording of image data (Goldstein: Fig. 2, stereoscopic display 214 displays the images taken by the lenticular recording device).

Re **claim 18**, Goldstein discloses that the reproduction means are made as active reproduction means, as a screen or display in the form of a cathode ray screen or liquid crystal display or as an optical image output device, as a beamer or laser television (Goldstein: Fig. 2, stereoscopic display 214 displays the images taken by the lenticular recording device).

Re **claim 19**, Goldstein discloses that the image data are data about static images, in the form of photo data, or are data about moving images, in the form of video data (Goldstein: Fig. 2, stereoscopic display 214 displays stereoscopic video from stereoscopic video generator 212).

Re **claim 20**, Goldstein discloses a process for recording and reproduction of three-dimensional image data of an object, comprising the following process steps: image data of an object are recorded by means of a device as claimed in claim 1 for recording of image data (Goldstein: Fig. 7A, steps 400, 402, 404, 406, and 408); and the recorded image data are reproduced by means of a device for reproduction of image data (Goldstein: Fig. 7A, step 410), comprising the following: reproduction means for reproducing image data of the object (Goldstein: Fig. 2, stereoscopic video generator 212); and lens means with a plurality of lens elements which can image the light proceeding from the reproduction means (Goldstein: Fig. 2, stereoscopic display 214 displays stereoscopic video from stereoscopic video generator 212), wherein the reproduction means can reproduce the image data which have been recorded with a device for recording of image data (Goldstein: Fig. 2, stereoscopic display 214 displays the images taken by the lenticular recording device).

Re **claim 21**, Goldstein discloses that after recording and before reproduction of the image data they are processed, especially or digitally processed (Goldstein: Fig. 2, stereoscopic video generator 212 generates stereoscopic video).

Re **claim 25**, Goldstein discloses that the device is a microscope, a video device or a photo device (Goldstein: Fig. 2, the system processes the data as video).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 9 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goldstein et al. (US 6396873 B1).**

Re **claim 9**, Goldstein does not specifically disclose that the recording means comprise a part of a printing device on which changes can be achieved by the incident image data such that selective toner application is enabled according to the image data. However, the Examiner takes Official Notice that printed images derived from video data (i.e., screen shots and thumbnail/index images) are well known in the art. Therefore, one of ordinary skill in the art at the time of the invention would have found it obvious to include the capability of printing out still images derived from the input sensor

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assembly in order to create a portable record of particular important events within the video stream.

Re **claim 17**, arguments analogous to those presented above for claim 9 are applicable to claim 17, and therefore claim 17 has been analyzed and rejected with respect to claim 9.

5. Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goldstein et al. (US 6396873 B1) in view of Morishima et al. (US 6160527 A, hereinafter referred to as “Morishima”).

Re **claim 4**, Goldstein does not specifically disclose that the lens means have a first array of cylinder lenses and a second array of cylinder lenses, the cylinder lenses of the first array being aligned essentially perpendicular to the cylinder lenses of the second array. However, Morishima discloses a stereoscopic image display apparatus, wherein two lenticular layers with perpendicular orientations are combined into one device in order to focus light in both the horizontal and vertical directions (Morishima: Figs. 4, 6, 7, 16, 20, and 21). Since both Goldstein and Morishima relate to stereoscopic devices with lenticular elements, one of ordinary skill in the art at the time of the invention would have found it obvious to combine the multiple lenticular layers of Morishima with the system of Goldstein in order to eliminate cross-talk and enabling observation from a wider region (Morishima: column 2, lines 35-49).

Re **claim 5**, Goldstein does not specifically disclose that the first array of cylinder lenses (8, 18a, 18b, 21a, 21b) is made on an entry surface of the lens means which can be turned toward the object, and wherein the second array of cylinder lenses is made on an exit surface of the lens means which can be turned away from the object. However, Morishima discloses a stereoscopic image display apparatus, wherein two lenticular layers with perpendicular orientations are combined into one device in order to focus light in both the horizontal and vertical directions (Morishima: Figs. 4, 6, 7, 16, 20, and 21). Since both Goldstein and Morishima relate to stereoscopic devices with lenticular elements, one of ordinary skill in the art at the time of the invention would have found it obvious to combine the multiple lenticular layers of Morishima with the system of Goldstein in order to eliminate cross-talk and enabling observation from a wider region (Morishima: column 2, lines 35-49).

Re **claim 6**, Goldstein does not specifically disclose that each and every one of the lens elements is formed by a cylinder lens on the entry surface and a cylinder lens on the exit surface. However, Morishima discloses a stereoscopic image display apparatus, wherein two lenticular layers with perpendicular orientations are combined into one device in order to focus light in both the horizontal and vertical directions (Morishima: Figs. 4, 6, 7, 16, 20, and 21). Since both Goldstein and Morishima relate to stereoscopic devices with lenticular elements, one of ordinary skill in the art at the time of the invention would have found it obvious to combine the multiple lenticular layers of Morishima with the system of Goldstein in order to eliminate cross-talk and enabling observation from a wider region (Morishima: column 2, lines 35-49).

Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTOPHER FINDLEY whose telephone number is (571)270-1199. The examiner can normally be reached on Monday-Friday (8:30 AM-5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha D. Banks-Harold can be reached on 571-272-7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Marsha D. Banks-Harold/
Supervisory Patent Examiner, Art Unit 2621

/Christopher Findley/